## **CLAIMS**

What is claimed is:

- 1. An apparatus for measuring and manipulating particles suspended in a fluid having
- electromagnetic and optical properties different from that of the particles, as the fluid and
- 3 particles move in a constricted volume along its longitudinal axis, and further comprising
- 4 means for establishing and sensing an electromagnetic field in the constricted volume and
- 5 means for making the fluid that is carrying the particles flow through the orifice.